1.   A method for server cluster power management, comprising the steps of:

    grouping activities within a server cluster into predefined sets;

    assigning a priority level to each set;

    identifying a first server hosting a first set of lower-priority activities within the cluster;

    receiving a power interruption signal; and

    diverting power reserves of the first server to another server in the cluster, in response to the power interruption signal.

2.   The method of claim 1 wherein the grouping step includes the step of:

    grouping activities by data type.

3.   The method of claim 1 wherein the grouping step includes the step of:

    grouping activities by process.

4.   The method of claim 1 wherein the grouping step includes the step of:

    defining activity sets based on Quality of Service according to a Common Open Policy Service Protocol (COPS).

5.   The method of claim 1 wherein the assigning step includes the step of:

    assigning the priority level based on the Quality of Service associated with the activity set.

1   6.   The method of claim 1 wherein the receiving step includes the step of:

2   receiving the power interruption signal, in response to a server cluster power

3   failure.

1   7.   The method of claim 1 wherein the receiving step includes the step of:

2   receiving the power interruption signal, in response to a network administrator

3   command.

1   8.   The method of claim 1, further comprising the step of:

2   diverting the first set of lower-priority activities to another server in the cluster.

1   9.   The method of claim 1:

2   wherein the identifying step includes the step of,

3   identifying a second server hosting a second set of lower-priority activities

4   within the cluster; and

5   wherein the diverting step includes the step of,

6   diverting power reserves of the second server to another server in the

7   cluster, in response to the power interruption signal.

1   10.   The method of claim 1 wherein the diverting step includes the step of:

2   diverting battery power reserves of the first server to another server in the cluster.

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1 11. The method of claim 1 further comprising the step of:

2   shifting a set of high-priority activities to operational servers in the cluster, in

3 response to the power interruption signal..

1 12. The method of claim 1 further comprising the steps of:

2   identifying a second server hosting an activity which is highest on the priority

3 list;

4   diverting power reserves from all servers to the second server.

1 13. The method of claim 1 further comprising the step of:

2   incrementally shutting down lower-priority activities on the second server as

3 power reserves dwindle.

1 14. A method for server cluster power management, comprising the steps of:

2   grouping activities within a server cluster into predefined sets;

3   assigning a priority level to each set;

4   identifying a first server hosting a first set of lower-priority activities within the

5 cluster;

6   receiving a power interruption signal;

7   diverting power reserves of the first server to another server in the cluster, in

8 response to the power interruption signal;

9   identifying a second server hosting an activity which is highest on the priority

10 list;

11   diverting power reserves from all servers to the second server, in response to the power

12   interruption signal; and

13   incrementally shutting down lower-priority activities on the second server as

14   power reserves dwindle.

1   15.   A computer-usable medium embodying computer program code for commanding

2   a computer to perform server cluster power management comprising the steps of:

3   grouping activities within a server cluster into predefined sets;

4   assigning a priority level to each set;

5   identifying a first server hosting a first set of lower-priority activities within the

6   cluster;

7   receiving a power interruption signal; and

8   diverting power reserves of the first server to another server in the cluster, in

9   response to the power interruption signal.

1   16.   The medium of claim 15 wherein the assigning step includes the step of:

2   assigning the priority level based on the Quality of Service associated with the

3   activity set.

1   17.   The medium of claim 15 wherein the receiving step includes the step of:

2   receiving the power interruption signal, in response to a server cluster power

3   failure.

1   18.   The medium of claim 15 wherein the receiving step includes the step of:

2   receiving the power interruption signal, in response to a network administrator

3 command.

1   19.   The medium of claim 15, further comprising the step of:

2   diverting the first set of lower-priority activities to another server in the cluster.

1   20.   The medium of claim 15 further comprising the steps of:

2   identifying a second server hosting an activity which is highest on the priority

3 list;

4   diverting power reserves from all servers to the second server.

1   21.   The medium of claim 15 further comprising the step of:

2   incrementally shutting down lower-priority activities on the second server as

3 power reserves dwindle.

1   22.   A system for server cluster power management comprising a:

2   means for grouping activities within a server cluster into predefined sets;

3   means for assigning a priority level to each set;

4   means for identifying a first server hosting a first set of lower-priority activities

5 within the cluster;

6   means for receiving a power interruption signal; and

7   means for diverting power reserves of the first server to another server in the

8 cluster, in response to the power interruption signal.

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1 23.   A system for server cluster power management comprising:

2   servers, hosting a plurality of activity sets each having an associated Quality of

3 Service (QoS) level;

4   power reserves coupled to the servers;

5   a switch matrix coupled to direct the power reserves between the servers; and

6   a power manager, coupled to the switch matrix, for commanding the switch

7 matrix to divert power from servers hosting low QoS activity sets to servers hosting high-

8 priority activity sets, in response to a power interruption.

1 24.   The system of claim 23, wherein the power reserves include:

2   uninterruptible power supplies with battery backup.

1 25.   The system of claim 23, further comprising:

2   a QoS line coupling the servers to the power manager for transmitting the QoS

3 level of the activity sets.

1 26.   The system of claim 25, wherein the QoS line transmits QoS information

2 according to a Common Open Policy Service Protocol (COPS).

1 27.   The system of claim 23, further comprising:

2   a power divert line coupling the power reserves to the switch matrix for carrying

3 the diverted power.